

WHAT IS CLAIMED IS:

1. An optical pickup apparatus comprising:
  - a first light source for emitting a first laser beam having a first wavelength;
  - 5 a second light source for emitting a second laser beam having a second wavelength; and
  - an objective lens for condensing the first laser beam and the second laser beam,
  - wherein the first light source and the second light source are
  - 10 disposed in positions in such a way that a total amount of coma aberration, which is generated on the first laser beam in accordance with a distance between the first light source and an optical axis of a whole optical system and coma aberration, which is generated on the first laser beam in accordance with a tilting amount of the objective lens becomes
  - 15 null, and a total amount of coma aberration, which is generated on the second laser beam in accordance with a distance between the second light source and said optical axis and coma aberration, which is generated on the second laser beam in accordance with the tilting amount of the objective lens becomes null.
- 20 2. An optical pickup apparatus comprising:
  - a first light source for emitting a first laser beam having a first wavelength;
  - a second light source for emitting a second laser beam having a second wavelength;
  - 25 a collimator lens for transforming the first laser beam and second laser beam to parallel beams; and
  - an objective lens for condensing the parallel beams,
  - wherein the first light source and second light source are

disposed in positions in such a way that a total amount of coma aberration, which is generated on the first laser beam due to an image height relative to an optical axis of a whole optical system, which is generated in accordance with a first angle of incidence at which the first  
5 laser beam is launched into the collimator lens, and coma aberration, which is generated on the first laser beam in accordance with a tilting amount of the objective lens becomes null and a total amount of coma aberration, which is generated on the second laser beam due to an image height relative to said optical axis, which is generated in accordance with  
10 a second angle of incidence at which the second laser beam is launched into the collimator lens and coma aberration, which is generated on the second laser beam in accordance with the tilting amount of the objective lens becomes null.

3. An optical pickup apparatus comprising:  
15 a first light source for emitting a first laser beam having a first wavelength;  
a second light source for emitting a second laser beam having a second wavelength;  
a collimator lens for transforming the first laser beam and the  
20 second laser beam to parallel beams; and  
an objective lens for condensing the parallel beams,  
wherein a distance B between the second light source and an optical axis of a whole optical system is expressed by a following formula:

$$B = (g \cdot H \cdot A) / (g \cdot H - G \cdot h)$$

25 where "A" is a distance between the first light source and second light source, "B" is a distance between the first light source and the optical axis, "h" is an increasing rate in an amount of coma aberration of the first laser beam relative to a first angle of incidence " $\alpha_1 = \tan^{-1}(B/f)$ " at

which the first laser beam is launched into the collimator lens, "H" is an increasing rate in an amount of coma aberration of the second laser beam relative to a second angle of incidence " $\alpha_2 = \tan^{-1}((B-A)/f)$ " at which the second laser beam is launched into the collimator lens, "g" is an increasing rate in an amount of coma aberration of the first laser beam relative to a tilt angle " $\beta$ " of the objective lens and "G" is an increasing rate in an amount of coma aberration of the second laser beam relative to the tilt angle " $\beta$ " of the objective lens.